IFW*p*

```
           RAW SEQUENCE LISTING                    DATE: 12/29/2005
           PATENT APPLICATION:   US/10/561,487     TIME: 15:03:40

           Input Set : A:\66168-03 Sequence Listing.txt
           Output Set: N:\CRF4\12292005\J561487.raw

     3  <110> APPLICANT: The Government of the United States of America as
     4        represented by the Secretary of the Department of Health and
     5        Human Services
     6        Drayna, Dennis
     7        Kim, Un-kyung
     9  <120> TITLE OF INVENTION: VARIANTS OF HUMAN TASTE RECEPTOR GENES
    11  <130> FILE REFERENCE: 4239-66168-03
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/561,487
C--> 13 <141> CURRENT FILING DATE: 2005-12-19
    13  <150> PRIOR APPLICATION NUMBER: PCT/US2004/019489
    14  <151> PRIOR FILING DATE: 2004-06-18
    16  <150> PRIOR APPLICATION NUMBER: US 60/480,035
    17  <151> PRIOR FILING DATE: 2003-06-19
    19  <160> NUMBER OF SEQ ID NOS: 264
    21  <170> SOFTWARE: PatentIn version 3.2
    23  <210> SEQ ID NO: 1
    24  <211> LENGTH: 900
    25  <212> TYPE: DNA
    26  <213> ORGANISM: Homo sapiens
    29  <220> FEATURE:
    30  <221> NAME/KEY: CDS
    31  <222> LOCATION: (1)..(900)
    33  <220> FEATURE:
    34  <221> NAME/KEY: variation
    35  <222> LOCATION: (332)..(332)
    36  <223> OTHER INFORMATION: r is g or a
    38  <220> FEATURE:
    39  <221> NAME/KEY: variation
    40  <222> LOCATION: (616)..(616)
    41  <223> OTHER INFORMATION: y is t or c
    43  <400> SEQUENCE: 1
    44  atg cta gag tct cac ctc att atc tat ttt ctt ctt gca gtg ata caa      48
    45  Met Leu Glu Ser His Leu Ile Ile Tyr Phe Leu Leu Ala Val Ile Gln
    46  1               5                   10                  15
    48  ttt ctt ctt ggg att ttc aca aat ggc atc att gtg gtg gtg aat ggc      96
    49  Phe Leu Leu Gly Ile Phe Thr Asn Gly Ile Ile Val Val Val Asn Gly
    50          20                  25                  30
    52  att gac ttg atc aag cac aga aaa atg gct ccg ctg gat ctc ctt ctt     144
    53  Ile Asp Leu Ile Lys His Arg Lys Met Ala Pro Leu Asp Leu Leu Leu
    54          35                  40                  45
    56  tct tgt ctg gca gtt tct aga att ttt ctg cag ttg ttc atc ttc tac     192
    57  Ser Cys Leu Ala Val Ser Arg Ile Phe Leu Gln Leu Phe Ile Phe Tyr
    58      50                  55                  60
```

pp 1,6

? "c" is at 616 (p.2)

RAW SEQUENCE LISTING   DATE: 12/29/2005
PATENT APPLICATION: US/10/561,487   TIME: 15:03:40

Input Set : A:\66168-03 Sequence Listing.txt
Output Set: N:\CRF4\12292005\J561487.raw

```
 60 gtt aat gtg att gtt atc ttc ttc ata gaa ttc atc atg tgt tct gcg    240
 61 Val Asn Val Ile Val Ile Phe Phe Ile Glu Phe Ile Met Cys Ser Ala
 62 65              70              75              80
 64 aat tgt gca att ctc tta ttt ata aat gaa ttg gaa ctt tgg ctt gcc    288
 65 Asn Cys Ala Ile Leu Leu Phe Ile Asn Glu Leu Glu Leu Trp Leu Ala
 66             85              90              95
 68 aca tgg ctc ggc gtt ttc tat tgt gcc aag gtt gcc agc gtc crt cac    336
 69 Thr Trp Leu Gly Val Phe Tyr Cys Ala Lys Val Ala Ser Val Xaa His
 70             100             105             110
 72 cca ctc ttc atc tgg ttg aag atg agg ata tcc aag ctg gtc cca tgg    384
 73 Pro Leu Phe Ile Trp Leu Lys Met Arg Ile Ser Lys Leu Val Pro Trp
 74             115             120             125
 76 atg atc ctg ggg tct ctg cta tat gta tct atg att tgt gtt ttc cat    432
 77 Met Ile Leu Gly Ser Leu Leu Tyr Val Ser Met Ile Cys Val Phe His
 78             130             135             140
 80 agc aaa tat gca ggg ttt atg gtc cca tac ttc cta agg aaa ttt ttc    480
 81 Ser Lys Tyr Ala Gly Phe Met Val Pro Tyr Phe Leu Arg Lys Phe Phe
 82 145             150             155             160
 84 tcc caa aat gcc aca att caa aaa gaa gat aca ctg gct ata cag att    528
 85 Ser Gln Asn Ala Thr Ile Gln Lys Glu Asp Thr Leu Ala Ile Gln Ile
 86             165             170             175
 88 ttc tct ttt gtt gct gag ttc tca gtg cca ttg ctt atc ttc ctt ttt    576
 89 Phe Ser Phe Val Ala Glu Phe Ser Val Pro Leu Leu Ile Phe Leu Phe
 90             180             185             190
 92 gct gtt ttg ctc ttg att ttc tct ctg ggg agg cac acc cgg caa atg    624
 93 Ala Val Leu Leu Leu Ile Phe Ser Leu Gly Arg His Thr Arg Gln Met
 94             195             200             205
 96 aga aac aca gtg gcc ggc agc agg gtt cct ggc agg ggt gca ccc atc    672
 97 Arg Asn Thr Val Ala Gly Ser Arg Val Pro Gly Arg Gly Ala Pro Ile
 98     210             215             220
100 agc gcg ttg ctg tct atc ctg tcc ttc ctg atc ctc tac ttc tcc cac    720
101 Ser Ala Leu Leu Ser Ile Leu Ser Phe Leu Ile Leu Tyr Phe Ser His
102 225             230             235             240
104 tgc atg ata aaa gtt ttt ctc tct tct cta aag ttt cac atc aga agg    768
105 Cys Met Ile Lys Val Phe Leu Ser Ser Leu Lys Phe His Ile Arg Arg
106             245             250             255
108 ttc atc ttt ctg ttc ttc atc ctt gtg att ggt ata tac cct tct gga    816
109 Phe Ile Phe Leu Phe Phe Ile Leu Val Ile Gly Ile Tyr Pro Ser Gly
110             260             265             270
112 cac tct ctc atc tta att tta gga aat cct aaa ttg aaa caa aat gca    864
113 His Ser Leu Ile Leu Ile Leu Gly Asn Pro Lys Leu Lys Gln Asn Ala
114     275             280             285
116 aaa aag ttc ctc ctc cac agt aag tgc tgt cag tga                    900
117 Lys Lys Phe Leu Leu His Ser Lys Cys Cys Gln
118     290             295
121 <210> SEQ ID NO: 2
122 <211> LENGTH: 299
123 <212> TYPE: PRT
124 <213> ORGANISM: Homo sapiens
```

RAW SEQUENCE LISTING   DATE: 12/29/2005
PATENT APPLICATION: US/10/561,487   TIME: 15:03:40

Input Set : A:\66168-03 Sequence Listing.txt
Output Set: N:\CRF4\12292005\J561487.raw

```
126 <220> FEATURE:
127 <221> NAME/KEY: misc_feature
128 <222> LOCATION: (111)..(111)
129 <223> OTHER INFORMATION: The 'Xaa' at location 111 stands for Arg, or His.
131 <400> SEQUENCE: 2
133 Met Leu Glu Ser His Leu Ile Ile Tyr Phe Leu Leu Ala Val Ile Gln
134 1               5                   10                  15
137 Phe Leu Leu Gly Ile Phe Thr Asn Gly Ile Ile Val Val Val Asn Gly
138             20                  25                  30
141 Ile Asp Leu Ile Lys His Arg Lys Met Ala Pro Leu Asp Leu Leu Leu
142             35                  40                  45
145 Ser Cys Leu Ala Val Ser Arg Ile Phe Leu Gln Leu Phe Ile Phe Tyr
146     50                  55                  60
149 Val Asn Val Ile Val Ile Phe Phe Ile Glu Phe Ile Met Cys Ser Ala
150 65                  70                  75                  80
153 Asn Cys Ala Ile Leu Leu Phe Ile Asn Glu Leu Glu Leu Trp Leu Ala
154             85                  90                  95
157 Thr Trp Leu Gly Val Phe Tyr Cys Ala Lys Val Ala Ser Val Xaa His
158             100                 105                 110
161 Pro Leu Phe Ile Trp Leu Lys Met Arg Ile Ser Lys Leu Val Pro Trp
162             115                 120                 125
165 Met Ile Leu Gly Ser Leu Leu Tyr Val Ser Met Ile Cys Val Phe His
166     130                 135                 140
169 Ser Lys Tyr Ala Gly Phe Met Val Pro Tyr Phe Leu Arg Lys Phe Phe
170 145                 150                 155                 160
173 Ser Gln Asn Ala Thr Ile Gln Lys Glu Asp Thr Leu Ala Ile Gln Ile
174             165                 170                 175
177 Phe Ser Phe Val Ala Glu Phe Ser Val Pro Leu Leu Ile Phe Leu Phe
178             180                 185                 190
181 Ala Val Leu Leu Leu Ile Phe Ser Leu Gly Arg His Thr Arg Gln Met
182     195                 200                 205
185 Arg Asn Thr Val Ala Gly Ser Arg Val Pro Gly Arg Gly Ala Pro Ile
186     210                 215                 220
189 Ser Ala Leu Leu Ser Ile Leu Ser Phe Leu Ile Leu Tyr Phe Ser His
190 225                 230                 235                 240
193 Cys Met Ile Lys Val Phe Leu Ser Ser Leu Lys Phe His Ile Arg Arg
194             245                 250                 255
197 Phe Ile Phe Leu Phe Phe Ile Leu Val Ile Gly Ile Tyr Pro Ser Gly
198             260                 265                 270
201 His Ser Leu Ile Leu Ile Leu Gly Asn Pro Lys Leu Lys Gln Asn Ala
202         275                 280                 285
205 Lys Lys Phe Leu Leu His Ser Lys Cys Cys Gln
206     290                 295
209 <210> SEQ ID NO: 3
210 <211> LENGTH: 951
211 <212> TYPE: DNA
212 <213> ORGANISM: Homo sapiens
215 <220> FEATURE:
216 <221> NAME/KEY: CDS
```

RAW SEQUENCE LISTING   DATE: 12/29/2005
PATENT APPLICATION: US/10/561,487   TIME: 15:03:40

        Input Set : A:\66168-03 Sequence Listing.txt
        Output Set: N:\CRF4\12292005\J561487.raw

217 <222> LOCATION: (1)..(951)
219 <220> FEATURE:
220 <221> NAME/KEY: variation
221 <222> LOCATION: (349)..(349)
222 <223> OTHER INFORMATION: y is t or c
224 <220> FEATURE:
225 <221> NAME/KEY: variation
226 <222> LOCATION: (807)..(807)
227 <223> OTHER INFORMATION: y is t or c
229 <220> FEATURE:
230 <221> NAME/KEY: variation
231 <222> LOCATION: (852)..(852)
232 <223> OTHER INFORMATION: y is t or c
234 <400> SEQUENCE: 3
235 atg atg gga ctc acc gag ggg gtg ttc ctg att ctg tct ggc act cag   48
236 Met Met Gly Leu Thr Glu Gly Val Phe Leu Ile Leu Ser Gly Thr Gln
237 1   5   10   15
239 ttc aca ctg gga att ctg gtc aat tgt ttc att gag ttg gtc aat ggt   96
240 Phe Thr Leu Gly Ile Leu Val Asn Cys Phe Ile Glu Leu Val Asn Gly
241   20   25   30
243 agc agc tgg ttc aag acc aag aga atg tct ttg tct gac ttc atc atc   144
244 Ser Ser Trp Phe Lys Thr Lys Arg Met Ser Leu Ser Asp Phe Ile Ile
245   35   40   45
247 acc acc ctg gca ctc ttg agg atc att ctg ctg tgt att atc ttg act   192
248 Thr Thr Leu Ala Leu Leu Arg Ile Ile Leu Leu Cys Ile Ile Leu Thr
249   50   55   60
251 gat agt ttt tta ata gaa ttc tct ccc aac aca cat gat tca ggg ata   240
252 Asp Ser Phe Leu Ile Glu Phe Ser Pro Asn Thr His Asp Ser Gly Ile
253 65   70   75   80
255 ata atg caa att att gat gtt tcc tgg aca ttt aca aac cat ctg agc   288
256 Ile Met Gln Ile Ile Asp Val Ser Trp Thr Phe Thr Asn His Leu Ser
257   85   90   95
259 att tgg ctt gcc acc tgt ctt ggt gtc ctc tac tgc ctg aaa atc gcc   336
260 Ile Trp Leu Ala Thr Cys Leu Gly Val Leu Tyr Cys Leu Lys Ile Ala
261   100   105   110
263 agt ttc tct cac ycc aca ttc ctc tgg ctc aag tgg aga gtt tct agg   384
264 Ser Phe Ser His Xaa Thr Phe Leu Trp Leu Lys Trp Arg Val Ser Arg
265   115   120   125
267 gtg atg gta tgg atg ctg ttg ggt gca ctg ctc tta tcc tgt ggt agt   432
268 Val Met Val Trp Met Leu Leu Gly Ala Leu Leu Leu Ser Cys Gly Ser
269   130   135   140
271 acc gca tct ctg atc aat gag ttt aag ctc tat tct gtc ttt agg gga   480
272 Thr Ala Ser Leu Ile Asn Glu Phe Lys Leu Tyr Ser Val Phe Arg Gly
273 145   150   155   160
275 att gag gcc acc agg aat gtg act gaa cac ttc aga aag aag agg agt   528
276 Ile Glu Ala Thr Arg Asn Val Thr Glu His Phe Arg Lys Lys Arg Ser
277   165   170   175
279 gag tat tat ctg atc cat gtt ctt ggg act ctg tgg tac ctg cct ccc   576
280 Glu Tyr Tyr Leu Ile His Val Leu Gly Thr Leu Trp Tyr Leu Pro Pro

RAW SEQUENCE LISTING   DATE: 12/29/2005
PATENT APPLICATION: US/10/561,487   TIME: 15:03:40

Input Set : A:\66168-03 Sequence Listing.txt
Output Set: N:\CRF4\12292005\J561487.raw

```
281           180                 185                 190
283 tta att gtg tcc ctg gcc tcc tac tct ttg ctc atc ttc tcc ctg ggg      624
284 Leu Ile Val Ser Leu Ala Ser Tyr Ser Leu Leu Ile Phe Ser Leu Gly
285           195                 200                 205
287 agg cac aca cgg cag atg ctg caa aat ggg aca agc tcc aga gat cca      672
288 Arg His Thr Arg Gln Met Leu Gln Asn Gly Thr Ser Ser Arg Asp Pro
289       210                 215                 220
291 acc act gag gcc cac aag agg gcc atc aga atc atc ctt tcc ttc ttc      720
292 Thr Thr Glu Ala His Lys Arg Ala Ile Arg Ile Ile Leu Ser Phe Phe
293 225                 230                 235                 240
295 ttt ctc ttc tta ctt tac ttt ctt gct ttc tta att gca tca ttt ggt      768
296 Phe Leu Phe Leu Leu Tyr Phe Leu Ala Phe Leu Ile Ala Ser Phe Gly
297               245                 250                 255
299 aat ttc cta cca aaa acc aag atg gct aag atg att ggy gaa gta atg      816
300 Asn Phe Leu Pro Lys Thr Lys Met Ala Lys Met Ile Xaa Glu Val Met
301               260                 265                 270
303 aca atg ttt tat cct gct ggc cac tca ttt att cty att ctg ggg aac      864
304 Thr Met Phe Tyr Pro Ala Gly His Ser Phe Ile Xaa Ile Leu Gly Asn
305               275                 280                 285
307 agt aag ctg aag cag aca ttt gta gtg atg ctc cgg tgt gag tct ggt      912
308 Ser Lys Leu Lys Gln Thr Phe Val Val Met Leu Arg Cys Glu Ser Gly
309       290                 295                 300
311 cat ctg aag cct gga tcc aag gga ccc att ttc tct tag                  951
312 His Leu Lys Pro Gly Ser Lys Gly Pro Ile Phe Ser
313 305                 310                 315
316 <210> SEQ ID NO: 4
317 <211> LENGTH: 316
318 <212> TYPE: PRT
319 <213> ORGANISM: Homo sapiens
321 <220> FEATURE:
322 <221> NAME/KEY: misc_feature
323 <222> LOCATION: (117)..(117)
324 <223> OTHER INFORMATION: The 'Xaa' at location 117 stands for Pro, or Ser.
326 <220> FEATURE:
327 <221> NAME/KEY: misc_feature
328 <222> LOCATION: (269)..(269)
329 <223> OTHER INFORMATION: The 'Xaa' at location 269 stands for Gly.
331 <220> FEATURE:
332 <221> NAME/KEY: misc_feature
333 <222> LOCATION: (284)..(284)
334 <223> OTHER INFORMATION: The 'Xaa' at location 284 stands for Leu.
336 <400> SEQUENCE: 4
338 Met Met Gly Leu Thr Glu Gly Val Phe Leu Ile Leu Ser Gly Thr Gln
339 1               5                 10                15
342 Phe Thr Leu Gly Ile Leu Val Asn Cys Phe Ile Glu Leu Val Asn Gly
343               20                 25                30
346 Ser Ser Trp Phe Lys Thr Lys Arg Met Ser Leu Ser Asp Phe Ile Ile
347           35                 40                45
350 Thr Thr Leu Ala Leu Leu Arg Ile Ile Leu Leu Cys Ile Ile Leu Thr
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 12/29/2005
PATENT APPLICATION: US/10/561,487   TIME: 15:03:41

Input Set : A:\66168-03 Sequence Listing.txt
Output Set: N:\CRF4\12292005\J561487.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:1;  Xaa Pos. 111
Seq#:2;  Xaa Pos. 111
Seq#:3;  Xaa Pos. 117,269,284
Seq#:4;  Xaa Pos. 117,269,284
Seq#:5;  Xaa Pos. 3,7,62,96,171
Seq#:6;  Xaa Pos. 3,7,62,96,171
Seq#:7;  Xaa Pos. 26,79,113,167,213,294
Seq#:8;  Xaa Pos. 26,79,113,167,213,294
Seq#:9;  Xaa Pos. 263
Seq#:10; Xaa Pos. 263
Seq#:11; Xaa Pos. 166,183,277,308
Seq#:12; Xaa Pos. 166,183,277,308
Seq#:13; Xaa Pos. 67,150,187,289,294
Seq#:14; Xaa Pos. 67,150,187,289,294
Seq#:15; Xaa Pos. 40,156,174,188,209
Seq#:16; Xaa Pos. 40,156,174,188,209
Seq#:17; Xaa Pos. 259
Seq#:18; Xaa Pos. 259
Seq#:19; Xaa Pos. 86
Seq#:20; Xaa Pos. 86
Seq#:21; Xaa Pos. 100,101,154,172,222,282
Seq#:22; Xaa Pos. 100,101,154,172,222,282
Seq#:23; Xaa Pos. 49,80,262,274,296
Seq#:24; Xaa Pos. 49,80,262,274,296
Seq#:25; Xaa Pos. 193,197
Seq#:26; Xaa Pos. 193,197
Seq#:27; Xaa Pos. 187,273
Seq#:28; Xaa Pos. 187,273
Seq#:29; Xaa Pos. 63,127,195
Seq#:30; Xaa Pos. 63,127,195
Seq#:31; Xaa Pos. 35,90,154,170,200,212,221,294,295,297
Seq#:32; Xaa Pos. 35,90,154,170,200,212,221,294,295,297
Seq#:33; Xaa Pos. 35,162,200,217,227,240,248,276,281
Seq#:34; Xaa Pos. 35,162,200,217,227,240,248,276,281
Seq#:35; Xaa Pos. 36,228,250,288
Seq#:36; Xaa Pos. 36,228,250,288
Seq#:39; Xaa Pos. 32,109,140,152,225,240,267,295,299
Seq#:40; Xaa Pos. 32,109,140,152,225,240,267,295,299
Seq#:41; Xaa Pos. 141,143,148,172,236,252,255,270
Seq#:42; Xaa Pos. 141,143,148,172,236,252,255,270
Seq#:45; Xaa Pos. 199
Seq#:46; Xaa Pos. 199
```

VERIFICATION SUMMARY   DATE: 12/29/2005
PATENT APPLICATION: US/10/561,487   TIME: 15:03:41

Input Set : **A:\66168-03 Sequence Listing.txt**
Output Set: **N:\CRF4\12292005\J561487.raw**

```
L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:69 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:336
L:157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:96
L:264 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:384
L:300 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:816
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:864
L:366 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:112
L:402 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:256
L:406 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:272
L:455 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:48
L:467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:192
L:475 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:288
L:495 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:528
L:563 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:48
L:583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:80
L:603 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:160
L:685 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:96
L:697 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:240
L:709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:384
L:721 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:528
L:733 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:672
L:753 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:900
L:798 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:16
L:810 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:64
L:822 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:112
L:834 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:160
L:846 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:208
L:866 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:288
L:952 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:816
L:1044 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:256
L:1132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:528
L:1136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:576
L:1160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:864
L:1168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:930
L:1239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:160
L:1243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:176
L:1267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:272
L:1275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:304
L:1332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:240
L:1352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:480
L:1360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:576
L:1388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:912
L:1444 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:64
L:1464 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:144
L:1472 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:176
L:1500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:288
```

VERIFICATION SUMMARY   DATE: 12/29/2005
PATENT APPLICATION: US/10/561,487   TIME: 15:03:41

Input Set : A:\66168-03 Sequence Listing.txt
Output Set: N:\CRF4\12292005\J561487.raw

```
L:1553 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:144
L:1581 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:480
L:1585 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:528
L:1589 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:576
L:1597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:672
L:1665 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:32
L:1693 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:144
L:1697 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:160
L:1701 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:176
L:1709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:208
L:1818 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:816
L:1906 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:256
L:1955 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:288
L:2047 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:80
L:2173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:336
L:2185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:480
L:2189 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:528
L:2201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:672
L:2217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:864
L:2286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:96
L:2298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:144
L:2302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:160
L:2314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:208
L:2330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:272
L:2387 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:192
L:2391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:240
L:2439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:816
L:2443 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:864
L:2447 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:912
L:2503 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:48
L:2507 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:64
L:2555 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:256
L:2559 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:272
L:2563 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:288
L:2645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:624
L:2750 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:192
L:2856 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:576
L:2880 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:864
L:2957 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:176
L:2981 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:272
L:3036 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:192
L:3052 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:384
L:3072 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:624
L:3138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:48
L:3154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:112
L:3174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:192
L:3276 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:144
L:3288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:288
L:3304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:480
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VERIFICATION SUMMARY
PATENT APPLICATION: US/10/561,487

DATE: 12/29/2005
TIME: 15:03:41

Input Set : A:\66168-03 Sequence Listing.txt
Output Set: N:\CRF4\12292005\J561487.raw

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L:3308 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:528
L:3316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:624
L:3320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:672
L:3340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:912
L:3413 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:32
L:3425 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:80
L:3441 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:144
L:3445 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:160
L:3453 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:192
L:3457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:208
L:3477 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:288
L:3550 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:144
L:3582 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:528
L:3590 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:624
L:3594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:672
L:3598 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:720
L:3602 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:768
L:3610 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:864
L:3682 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:32
L:3714 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:160
L:3722 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:192
L:3726 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:208
L:3730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:224
L:3734 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:240
L:3742 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:272
L:3794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:144
L:3842 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:720
L:3846 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:768
L:3854 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:864
L:3897 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:32
L:3945 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:224
L:3949 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:240
L:3957 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:272
L:4205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:96
L:4225 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:336
L:4233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:432
L:4237 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:480
L:4257 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:720
L:4265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:816
L:4273 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:900
L:4333 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:16
L:4353 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:96
L:4361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:128
L:4365 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:144
L:4385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:224
L:4393 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:256
L:4401 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:288
L:4489 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:432
L:4493 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:480
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VERIFICATION SUMMARY   DATE: 12/29/2005
PATENT APPLICATION: US/10/561,487   TIME: 15:03:41

Input Set : A:\66168-03 Sequence Listing.txt
Output Set: N:\CRF4\12292005\J561487.raw

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L:4497 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:528
L:4513 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:720
L:4517 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:768
L:4521 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:816
L:4616 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:128
L:4620 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:144
L:4624 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:160
L:4640 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:224
L:4644 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:240
L:4648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:256
L:4900 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:624
L:4992 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:192
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